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ABSTRACT

The educational system known as Individually Guided Education (IGE) will become increasingly important as schools enter a period of retrenchment in the 1980's. Four factors necessary for basic skills achievement can be achieved through the use of IGE: (1) strong leadership by the school principal; (2) time spent in direct instruction by the teacher; (3) high teacher expectations for student performance; and (4) a school-wide emphasis on basic skills instruction. Although it combines interdependent and interrelated curricular components, IGE is a flexible system that has had many local variations since its inception. However, IGE goals of shared decision making, instructional programming, and continuous progress have remained common to IGE practice. Research has found that these conditions are beneficial to the successful application of basic skills instruction. Through the use of IGE principles, a commitment to basic skills goals can be achieved at the school level. (FG)

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IGE AND BASIC SKILLS IN THE 80's:

A CASE FOR EFFECTIVE SCHOOLING

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Current events in education and in the larger social order appear to indicate that we may be in a period of retrenchment in education. The freewheeling approaches to innovation and experimentation which were so sommon in the sixties may be past as educators search for ways to restore public faith in the education enterprise.

Neither educators nor their many publics fear innovation and experimentation, but because of the perceived abuse of both, distrust and dissatisfaction have often resulted. Educators can no longer, therefore, expect blank checks from their communities for what are judged to be frills of questionable relevance to the primary mission of elementary and secondary education in America.

The public wants to believe in its schools, and the recent attention given such issues as basic skills, accountability, and competency are evidence that the public is simply looking for a satisfactory return on its investment. While the educational community must respond with logic and warmth to such genuine public concerns about what it may see as unnecessary or foolish innovations, educators must also have the courage to defend continued improvement through research and development (Sava, 1975). It seems reasonable, therefore, to expect public support for searches for improvement so long as the public sees the worth of it all.

Individually Guided Education (IGE) as a concept for effective schools was born in the exciting sixties. The IGE movement spread throughout the nation and today flourishing IGE schools may be identified in both large and small communities.

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The question of interest as we examine our future seems to be what impact does IGE have on the basic skills movements of the eighties? Are there any aspects of IGE that address the basic skills movement in a positive way? Are there any common threads of research that affirm or deny the relationships between IGE and improving the teaching of basic skills?

Answers to these questions can be found by comparing basic skills research and literature against the standards established for the significant components of IGE. It will become apparent that many of the concepts of IGE do form a basis for possible high achievement in the basic skills.

SIGNIFICANT FINDINGS ABOUT BASIC SKILLS ACHIEVEMENT

We do know that high achievement in the basic skills correlates significantly with certain factors. The Center for the Study of Basic Skills at Southwest Texas State University (Bechtol, 1980) has identified three key factors which are relevant to successful teaching of the basic skills:

1. Time spent in direct teaching is of the greatest importance if students are to master the basic skills.
2. Good classroom management is required for teaching basic skills.
3. Students attain the basic skills when their teachers expect them to achieve.

Other relevant factors identified are that good curriculum planning is required; good teaching makes a difference in student achievement of basic skills; older students who lack basic skills can be helped; and parent involvement improves student learning of the basic skills.

The Center for Educational Policy and Management (CEPM) at the University of Oregon, whose mission is to investigate how policy and management affect student mastery of basic skills in reading and mathematics, established a research agenda to guide further study. The center reviewed several studies which identified the following factors as being positively associated with school productivity:

1. Strong administrative leadership by the building principal, especially in regard to instructional matters.

2. School climate conducive to learning, i.e., safe and orderly.

3. School-wide emphasis on basic skills instruction, which entails agreement among the professional staff that instruction in the basic skills is the primary goal of the school.

4. Teacher expectations that students can reach high levels of achievement.

5. Monitoring and assessing systems tied to instructional objectives. (Hersh, et.al., 1981)

From this overlapping set of significant factors, four appear to have special value in basic skills achievement. These are instructional leadership by the building principal; time spent in direct teaching; high teacher expectations; and school wide emphasis on basic skills. These four factors will be examined, and the utility of IGE as a means of achieving these factors will be shown.

INSTRUCTIONAL LEADERSHIP BY THE BUILDING PRINCIPAL

Research in basic skills achievement credits the principal as a key figure in success. At schools where principals support innovation, for example, there is typically greater agreement among teachers in their assessment of the innovation and a higher likelihood that the innovation will endure. Of even greater significance is the principal's role as an instructional leader. While principals are often not seen as the instructional leader, the team approach to instructional leadership seems to make sense (Gersten and Carnine, 1981). Further support of the shared decision-making model is found in recent literature which reports that administrative success in supervision depends upon the closeness with which administrators and teachers work together, and that administrative influences on student achievement is greater when it is directed toward an integrated teacher work structure (Duckworth, 1981).

The way that principals are seen by teachers is critical if the principal is to be instructional leader. Teacher perceptions that principals worked closely with them on instruction is positively correlated with teacher job satisfaction. The implication is that teachers prefer principals who are supportive and informal in nature rather than those who are evaluative and formal. The strength of the informal administrative approach depends almost entirely, however, on the teachers' perceptions that the principal is able and inclined to support teacher efforts. (Duckworth, 1981)

Time Spent in Direct Teaching

A significant breakthrough was made in the study of effective teacher behaviors with the Beginning Teacher Evaluation Study (BTES). The summary chapter of the report of the study (Berliner, et.al., 1980) defines three teacher behaviors related to time that are of significance in increasing achievement of the basic skills.

Allocated time is defined as the upper limit on the time available during school hours for the student to work on specific learning objectives. Engaged time includes that part of allocated time during which the student is paying attention, and academic learning time is defined as the amount of time a student spends engaged in an academic task that he/she can perform with high success. The reported findings of the BTES revealed a positive association between allocated time and student learning, between engaged time and student learning. Even though such findings may at first reading appear intuitively obvious to teachers, the BTES researchers found that these three behaviors are not routinely addressed by schools (Fisher, et.al., 1980).

Duckworth (1981), reporting on the conclusions of the BTES, indicated that such teacher work variables as planning work (diagnosis and prescription) and instructional work (presenting task content, monitoring student work, and providing feedback on student progress) tend to predict student achievement. Hersh, et.al., (1981), in their analysis of the BTES, reported that teachers who allocate more time for basic skills instruction are likely to be more effective.

Research in basic skills achievement is substantially conclusive in support of direct instruction as being more effective than other practices. It should not be surprising that keeping students on task for sustained periods of time is the most fundamental principle of direct instruction. Other significant principles of direct teaching are:

1. Highly structured questions which elicit a relatively high rate of correct answers from students are used by teachers and are included in practice materials.
2. The teachers and materials provide immediate, academically-oriented feedback, praising correct responses and exploring incorrect ones.
3. Instruction is provided to small groups or to the whole class.
4. Teachers monitor student performance during recitation sessions, and provide individualized feedback to students.
5. Teaching is characterized by clarity and enthusiasm.
6. The teacher uses curricular programs that provide a system of materials and methods consistent with the principle of direct instruction.
7. The teacher assumes that students will complete their homework assignments (Hersh, et.al., 1981).

The findings of the BTES also support the principles of direct instruction. Berliner, et.al., (1980) found significant relationships between student achievement and interaction between student and instructor; between student achievement and academic feedback; and between student achievement and lesson structure and the giving of directions on task procedure.

High Teacher Expectations

The Pygmalion theory has been a part of teacher training for many years, and we have all experienced or read of cases where students perform according to teacher expectations. The BTES (Berliner, et.al., 1980) further substantiated this notion. The researchers found, for example, that teacher emphasis on academic goals is positively associated with student learning. Classes judged to have high emphasis on academic performance typically

showed high levels of achievement. On the contrary, evidence is clear that when teacher attention to academic instruction is substantially reduced, students achieve less. Several replicated findings (Good, 1982) concluded that some teachers behave in a potentially negative manner toward low achievers.

Appropriate expectations appear to play an important mediation role in helping teachers to develop active communication skills. Evertson and Brophy found, in correlational interview work, that teachers who obtained achievement gains from students believed that they could teach all students while teachers who obtained lower levels of student achievement were less confident about whether they could teach certain students.

Thus, while the antecedents to the appropriate development of teacher expectations are unclear at this time, much correlational evidence exists which consistently associates appropriate teacher expectations with actual student learning (Good, 1982).

School Wide Emphasis on Basic Skills Instruction

A necessary condition for effective learning of the basic skills appears to be a school-wide commitment to basic skills instruction. Hersh, et.al., (1981) reported that conceptualization of basic skills achievement can vary in three ways. These are: what should be learned; how well it should be learned; and how quickly it can be learned. Unless a school-wide commitment to the intended learning outcomes exists, program management suffers from a faulty data base because teachers have varying concepts of what the basic skills objectives are and which grade level teacher has the major responsibility. Furthermore, without a school-wide commitment, achievement tests used to assess student learning are apt to be inconsistent with the curriculum or the expectations teachers have for their students (Hersh, et.al., 1981).

THE IGE SYSTEM

Individually Guided Education (IGE) is a system for educational improvement in the sense that it is composed of several interdependent and interrelated components. IGE is the means whereby ideas about what should be taught are translated into a valid and viable process of individualized learning for students. IGE learning programs combine the appropriate teacher, materials, and activities for an individual child's needs in ways to create opportunities for children to learn "One At a Time Together." (/I/D/E/A/ 16mm film, 1971)

IGE was developed by the Institute for Development of Educational Activities, Inc. (/I/D/E/A/) and the Wisconsin Research and Development Center for Individualized Schooling. The Wisconsin Model stresses seven critical components for successful schooling and includes a suggested curriculum. The seven components are: 1) a unique set of organizational-administrative arrangements and processes, 2) instructional programming for the individual student, 3) evaluation of student learning tied to instructional programming for the individual student, 4) compatible curriculum materials with instructional programming for the individual student, 5) a program of home-school-community relations, 6) facilitative environments in the school district and state, and 7) continuing research and development to keep IGE attuned to changing societal conditions (Jeter, 1980).

The /I/D/E/A/ conceptualization of IGE differs from the Wisconsin Model in that the former suggests a structured program through implementation of its 35 outcomes. The /I/D/E/A/ change program has two primary elements:

1. A process for individualizing learning by tailoring instructional methods to individual differences;
2. Continuous improvement process for schools to evaluate their own performance, to make changes in instructional procedures and to achieve higher levels of effective teaching.

Out of the initial frameworks of each model grew many variations and changes in IGE as the concept was originally implemented. As the components of IGE changed with time, it became apparent to many observers that these changes and adaptations may be critical to the local success of IGE as well as any other innovation. Local schools may be better off adapting the IGE concept to better meet local needs rather than adopting it as an unchangeable model.

Even though variations and adaptations from the original models have insured local success of IGE, common threads have remained. The components of IGE that appear to have had significant influence on successful practices of today are the principle of shared decision-making, the IGE instructional programming model and continuous progress.

Shared Decision-Making

IGE schools are oganized to increase involvement in educational decision-making. Hersh, et.al., (1981), reported that

> . . . some schools are more effective social entities as a result of a special combination of technically competent professionals who arrange and order school life differently than do others.

IGE schools are arranged and ordered differently than others. The main distinction that separates IGE schools from others which attempt to individualize is that IGE is a total system of schooling (Klausmeier, 1977).

Research in implementing change suggest that only an entire school has the critical mass to make change work (Sava, 1975). The primary motivation for change must come from the individual school level, and by their very design, IGE schools are primary change agents in the way that the entire school is involved. Singe (1976), for example, notes two changes in leadership because of the IGE concept, each of which directly affects the nature of schooling. The two changes unique to IGE schools are shared decision-making and coordinated role performance of interdependent unit members. Also, some recent

literature suggests that teachers may be more effective when they are involved in the actual governance of the school (Hersh, et.al., 1981).

Instructional Programming Model

The instructional programming model in IGE is the heart of the system (See Figure 1). It assumes active learning, continuous pupil progress, and personalized instruction. Incorporated into the model are advances in aptitude-treatment interactions, consideration of learning styles, awareness of mastery learning concepts, and effective use of a design of instruction (Jeter, 1980). IGE practitioners report that use of the programming model facilitates the teachers' planning and management of student learning activities.

While this model is designed to facilitate the development in all three domains of learning (Klausmeier, 1977), its immediate relevancy to basic skills achievement is, of course, cognitive growth. Recent research confirms the long-held intuitive observation that learning stems from purposeful effort or work on the part of students (Duckworth, 1981). This time on task research supports a basic IGE assumption that continuous progress by students requires activity by them (Klausmeier, 1977).

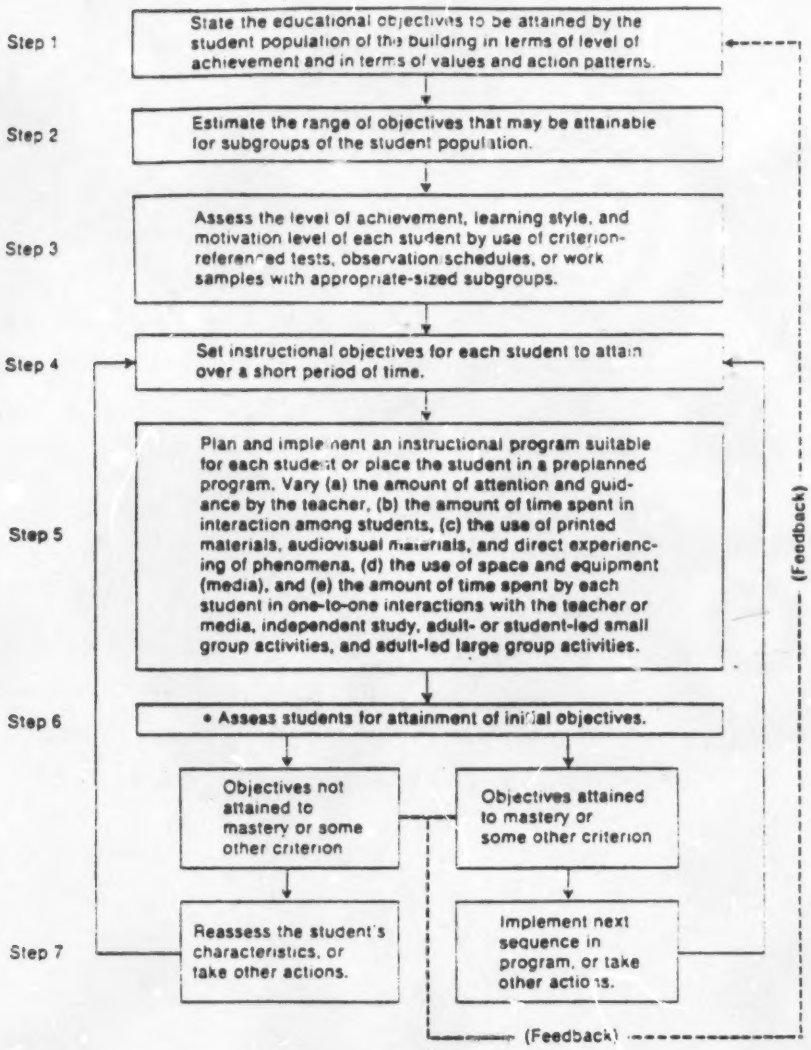
IGE AND BASIC SKILLS

Individually Guided Education, an eclectic educational system, has been defined as a comprehensive educational system, embracing the schools, the community, and programs of teacher preparation (Jeter,1980). To what extent does the IGE concept impact upon basic skills education?

Instructional Leadership

We know that instructional leadership provided by the building principal is a key to basic skills achievement. IGE successes tell us that the principal is a key person in the way she/he uses shared decision-making to insure better schools.

Figure 1. Instructional Programming Model in IGE


Step 1
State the educational objectives to be attained by the student population of the building in terms of level of achievement and in terms of values and action patterns.
Step 2
Estimate the range of objectives that may be attainable for subgroups of the student population.
Step 3
Assess the level of achievement, learning style, and motivation level of each student by use of criterion-referenced tests, observation schedules, or work samples with appropriate-sized subgroups.
Step 4
Set instructional objectives for each student to attain over a short period of time.
Step 5
Plan and implement an instructional program suitable for each student or place the student in a preplanned program. Vary (a) the amount of attention and guidance by the teacher, (b) the amount of time spent in interaction among students, (c) the use of printed materials, audiovisual materials, and direct experiencing of phenomena, (d) the use of space and equipment (media), and (e) the amount of time spent by each student in one-to-one interactions with the teacher or media, independent study, adult- or student-led small group activities, and adult-led large group activities.
Step 6
• Assess students for attainment of initial objectives.
Objectives not attained to mastery or some other criterion
Objectives attained to mastery or some other criterion
Step 7
Reassess the student's characteristics, or take other actions.
Implement next sequence in program, or take other actions.
(Feedback)
(Feedback)

(Adapted from H. J. Klausmeier, M. R. Quilling, J. S. Sorenson, R. S. Way, and G. R. Glasrud, *Individually Guided Education in the Multiunit Elementary School: Guidelines for Implementation* (Madison: Wisconsin Research and Development Center for Cognitive Learning, 1971).

IGE places great emphasis on the leadership exhibited by the building principal, and the value of this effort is borne out in the literature and reported research.

The basic supportive environment in the IGE school at the local level is determined by the building principal. We have observed, for example, that problems do arise in the implementation of IGE when the building principal is not prepared to act as a coordinator or facilitator of semi-autonomous groups of teachers (Duckwork, 1981). The Instructional Improvement Committee (IIC) serves the principal as the vehicle to insure appropriate coordination at the building level. The IIC, chaired by the principal, meets periodically to plan and organize the educational program for the entire building. (Nussel, Inglis, and Wiersma, 1976). The IIC is, therefore, a critical component in insuring the success of the system as it strives to reach its goals in basic skills education.

Among the criteria given for effective instructional leadership are shared influence, leader behavior, and team behavior (Singe, 1976). Thus, while the IIC may replace the principal as the sole educational decision-maker at the building level (Klausmeier, 1977), the role of the principal remains pivotal in insuring a facilitative environment for instruction.

The nature of the facilitative environment has a direct bearing on achievement in the basic skills. Many IGE schools depend, in varying degrees, upon the multiunit structure which is designed to insure an environment conducive to instructional programming (Klausmeier, 1977), but it is the management of this environment that becomes critical for success. The quality and use of human resources in a school, for example, have a significant effect on students' achievement level in basic skills (Hersh, et.al., 1981).

Research aimed at examining why certain schools are effective in basic skills education (Gersten and Carnine, 1981), reveals that if schools do not have efficient coordination of instruction as a major goal, then the principal cannot be expected to be the

instructional leader. The effective use of the IIC in IGE causes not only the principal, but the entire school and community to hold instructional improvement as the major goal.

Direct Instruction and Instructional Programming

Time spent in direct instruction, as we have seen, bears heavily on basic skills achievement. Direct instruction, characterized by a focus on academic goals, a teacher-centered focus, and the use of factual and controlled questions is important for teaching basic skills (Jeter, 1980).

Findings such as these have raised questions about the desirability of individualizing education, but the concepts of individualized instruction and direct instruction are not incompatible when examined in the light of the IGE instructional programming model and recent time on task research. The IGE model, heavily dependent upon a diagnostic/prescriptive approach, calls for a combination of direct instruction and student work on individual assignments with individual goal setting and self-direction. This emphasis on the diagnostic/prescriptive approach seems to support the concept of academic learning time in which the teacher finds ways for students to engage in work at a level which insures a high rate of success.

The Instructional Programming Model allows for great flexibility and adaptation to local needs. The model can, for example, be successfully used for specification of school goals as well as basic learning goals, and in either case, IGE programs are judged to be effective if they help students to achieve stated program goals (Jeter, 1980). The model addresses time on task because as it provides for differences among students in their rates and styles of learning, levels of motivation, and other individual characteristics, it also considers all the educational objectives of the school in order to improve students opportunities for success.

Community Involvement

Other aspects of IGE also support the major findings in the teaching of basic skills. It is evident that the community controls its schools through its willingness to use its power and resources on programs that reflect community values and interests. Open communication, a key component of IGE, is essential in order to insure the success of any program (Nussel, Inglis, and Wiersma, 1976). The compelling goal of IGE which aims directly toward today's needs in basic skills education is that IGE is trying to convert education from a trial and error approach into a logical, sequential set of activities which will give all students the chance to realize their own abilities (Sava, 1975). It is this goal that should become the driving force when schools work with the home and community.

Whenever a school attempts to change the status quo, the change must become internalized by the community as well as the school. Duckworth (1981) reported that the community is, in fact, a key environment which must be considered if schools are to implement instruction-related changes. Furthermore, the success of the school involving the community will determine the school's effectiveness in mounting political challenges to policy constraints which may hinder the necessary change. Involvement of the community is a necessity if schools expect to achieve the broad-based commitment to basic skills which is necessary if maximum growth is to occur. As we have seen earlier, this unified commitment to a goal is a significant correlation to success in achieving the goal.

Summary

While education in the 80's may be in a period of retrenchment as we search for ways to make our schools more effective, it appears that the educational system known as Invididually Guided Education will become increasingly relevant. The relevance of IGE concepts to school achievement tends to be supported by the

recent conclusions of the research into effective schools. Because of its consideration of the total system of schooling at the local level, IGE provides a logical framework for the implementation of basic skills programs that will lead to achievement gains. Thus, if we use well-planned programs, such as IGE, for educational improvement, it appears that schooling in the 80's can achieve its expectations.

The concepts of IGE appear to form a basis for high student achievement in the basis skills. Research into successes in basic skills achievement identified four factors of particular importance. These are: 1) instructional leadership and shared decision-making by the building principal, 2) time spent in direct teaching, 3) high teacher expectations, and 4) school-wide commitment to basic skills achievement.

The IGE system appears to have direct influence on successful practices of today through the adaptation of the principles of shared decision-making and the instructional programming model. Each of these principles provide the process for achieving unified commitment to the goal of achievement of the basic skills.

BIBLIOGRAPHY

Bechtol, William M. (Ed) Important Findings About Teaching Basic Skills. San Marcos, Texas: Center for the Study of Basic Skills, Southwest Texas State University, 1980.

Duckworth, Kenneth. "Linking Educational Policy and Management with Student Achievement." Mimeographed. Eugene, Oregon: Center for Educational Policy and Management, University of Oregon, 1981.

Fisher, Charles W., and others. "Teaching Behaviors, Academic Learning Time and Student Achievement: An Overview." In C. Denham and A. Lieberman (Eds), Time To Learn. Washington D.C.: National Institute of Education, 1980.

Gersten, Russel and Carnine, Douglas, "Administrative and Supervisory Support Functions for the Implementation of Effective Educational"

Good, Thomas L. "Research on Teaching: Some Important Areas of Progress." Paper presented at National Leadership Conference on Basic Skills. San Marcos, Texas: Center for the Study of Basic Skills, Southwest Texas State University, 1982.

Hersh, Richard H.; Carnine, Douglas; Gall, Meridith; Stockard, Jean; Carmack, Mary Ann; and Gannon, Paul. "The Management of Education Professionals in Instructionally Effective Schools: Toward a Research Agenda." Mimeographed. Eugene, Oregon: Center for Educational Policy and Management, University of Oregon, 1981.

/I/D/E/A/'s Guide to an Improvement Program for the Schools. (Dayton, Ohio; Institute for Development of Educational Activities, Inc. 1975)

Jeter, Jan (Ed) Approaches to Individualized Education. Alexandria, VA: The Association for Supervision and Curriculum Development. 1980.

Klausmeier, Herbert J. "IGE in Elementary & Middle Schools," Educational Leadership 34 (February, 1977): 330-336.

Klausmeier, Herbert J.; Quilling, Mary R.; Sorenson, Juanita S.; Way, Russel S.; and Glasrud, George R. Individually Guided Education and the Multiunit Elementary School; Guidelines for Implementation. Madison, WI: Wisconsin Research and Development Center for Cognitive Learning, 1971.

Krajewski, Robert J. "IGE: Will it Work?" Educational Leadership 36 (Decemter, 1978): 199-202

Nussel, Edward; Inglis, Joan D.: and Wiersma, William. The Teacher and Individually Guided Education. Reading, Mass.: Addison-Wesley, 1976.

Sava, Samuel G. "Forward to Basics." Paper presented to the Parents, School Committee members, and Central Office Administrators (Chelmsford, Mass., April 10, 1975). ERIC ED 106230.

Singe, Anthony L. "The Multiunit Elementary School: Implications for Instructional Leadership." Educational Leadership 33 (April, 1976): 538-542.